

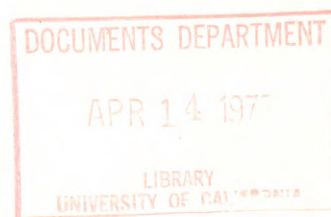
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EFT and the Public Interest

a report of the
U.S. **National Commission on
Electronic Fund Transfers**



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**(Second Printing)
February 1977
Washington, D.C.**

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Letter of Transmittal

To the President and to the
Congress of the United States:

I have the honor of transmitting the second report of the National Commission on Electronic Fund Transfers. The Commission was established by Public Law 93-495 (Oct. 28, 1974) and charged with conducting a thorough study and investigation and with making recommendations on appropriate administrative and legislative action to permit the orderly development of electronic funds transfer (EFT) systems.

The Commission held its first meeting on Feb. 6, 1976. Since then, the full Commission and its committees have held more than 60 meetings to discuss and take positions on key issues in EFT. As indicated in its first report, submitted on Oct. 29, 1976, the Commission has been convinced from the beginning of its work that results should be published as soon as they become available, as authorized by Sec. 203(b) of the Commission's enabling legislation. Thus, at its meeting of April 9, 1976, the Commission decided that a second report should be issued on or before March 1, 1977, to present its first substantial body of findings and recommendations.

This report deals with many public policy issues concerning individual consumers and institutions

affected by EFT. It contains recommendations on needed consumer protections, on the availability of EFT services, on the deployment and sharing of EFT systems or system components, on the role of the Government as an operator of EFT systems, and on other matters that may require governmental action.

The Commission hopes that this report will prove relevant and timely to the Congress and the Administration.

Respectfully submitted,



William B. Widnall
Chairman

February 23, 1977
Washington, D. C.

The President
The President of the Senate
The Speaker of the House of Representatives

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Chairman
Public Representative

Herb Wegner
Vice Chairman, Steering Committee
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Chapter 5. Government Operation of EFT

The Commission has been instructed to take into account in conducting its study of EFT systems:

the need . . . to assure Government regulation and involvement or participation in a system competitive with the private sector be kept to a minimum.¹

As part of its response to this congressional requirement, the Commission identified and addressed the issues involved in the Federal Government's role in automated clearing house (ACH) operations and point-of-sale (POS) switching facilities: the former because the Federal Government already has a substantial operational involvement in ACHs through the Federal Reserve, and the latter because of concerns on the part of some that there is a natural technical and organizational progression from the provision of ACH services to the provision of POS services, and on the part of others that Government involvement is necessary to ensure equitable development.

The Commission has conducted an extensive examination, including 2 days of hearings,² on the role of Government in the operation of EFT systems. The Commission focused on two primary questions. The first is whether the Federal Reserve should continue to operate ACHs. A subsidiary question,

assuming the Federal Reserve should provide ACH services, is for whom it should provide these services and how it should charge for them.

The second major question is what operational role government ought to have, if any, in the operation of POS switches. The two questions are related, but in the Commission's view the answers are quite distinct.

BACKGROUND ON AUTOMATED CLEARING HOUSES

The automated clearing house concept originated in April 1968, with the establishment of the Special Committee on Paperless Entries (SCOPE) by the Los Angeles and San Francisco Clearing House Associations. SCOPE was established to study the possibility of reducing the need for banks to handle paper checks in the clearing process. The desire to reduce the reliance on paper checks came about

¹ P. L. 93-495 (October 28, 1974), Section 203(a)(2); 12 U.S.C. 2403.

² The hearing notice, containing a detailed listing of the subjects considered at those hearings, is found at 41 Fed. Reg. 46910 (1976).

as a result of the increasing cost of check processing. Later that year, the American Bankers Association formed the Monetary and Payments System Planning Committee (MAPS) to study ways to improve the cost and efficiency of the payments system. In 1971, MAPS recommended that local and eventually national automated clearing mechanisms be developed.

By 1972, SCOPE had developed a computer software package and a set of operational rules. In October 1972, the California Automated Clearing House Association (organized by a group of commercial banks in California) began operations, followed 7 months later by the Georgia Automated Clearing House. These early developmental efforts provided the basis for the establishment in 1974 of the National Automated Clearing House Association (NACHA). NACHA was created to promote the ACH concept and to establish rules and standards for the exchange of payments between ACHs. NACHA also licenses to its 32 member associations the software package used for processing ACH payments.

An ACH mechanism involves the following participants: the private ACH association, the originating and receiving depository institutions, corporate and individual customers, and the Federal Reserve. An ACH association is a group of private depository institutions that has agreed to abide by certain rules and procedures for the purpose of exchanging payments on computer tape. Originating depository institutions receive instructions from corporate customers to pay out or collect funds from their customers who have elected to participate in a program of direct transfer. The originating depository institutions deposit these instructions on magnetic tape with the ACH facility. ACH

facilities are located on the premises of Federal Reserve offices (except the ones in Chicago and New York, which are privately operated). The ACH facility reads, edits, and balances the information on the tape, sorts the data according to the receiving depository institutions, and prepares aggregate accounting information for debit and credit to the appropriate depository institution. When the processing has been completed, the computer creates output media consisting of magnetic tape or descriptive paper listing. The output media are delivered to the receiving depository institution, which in turn debits and credits accounts of the appropriate customers who have agreed to participate in the program. Settlement for the transaction is accomplished by posting credits and debits to reserve balances maintained by member banks of the Federal Reserve System.

The services offered by participating depository institutions utilizing ACH facilities are direct deposit of payroll and preauthorized bill payments, such as mortgage and utility payments and insurance premiums. The facilities are used to process the direct deposit of Federal recurring payments, such as Social Security payments and Air Force payroll. For these payments the rules, procedures, and time schedules are established by the U.S. Department of the Treasury and the Federal Reserve rather than by the private ACH associations. At present, there are 26 operational ACHs processing commercial payments, with six more planned by 1978. In December 1976, the Federal Reserve processed 539,000 commercial ACH payments and 5.8 million Federal recurring payments.

ACH Associations

Because common rules applicable to all depository institutions are necessary for the successful implementation of an ACH, ACH associations have been formed. ACH associations are in some respects the counterpart of bank clearing house associations, and are generally nonprofit corporations. The owners of the corporation are the depository institutions that have agreed to abide by the rules, regulations, by-laws, and fee schedules of the association. The association rules contain provisions relating to membership requirements, warranties and liabilities of participants, consumer rights, and operational and procedural matters. To ensure consistency with Federal Reserve regulations and policy guidelines, ACH associations that use the Federal Reserve facilities for processing consult with the Federal Reserve bank concerning the establishment of the operating rules of the association.³

The costs to the depository institutions involved (excluding the Federal Reserve) associated with establishing an ACH association--for example, organizational, promotional, and legal fees--have ranged from \$75,000 to \$156,000. Total startup costs for all depository institutions in an ACH, which include marketing, computer programing, and employee training, have ranged up to \$1 million. Ongoing costs for an association, which include staff salaries and marketing fees, range from \$50,000 to \$150,000 per year. ACH associations generate revenue to cover these costs through initiation fees and annual dues and transaction charges.

Although the ACHs currently operating have their own organizational components (budgets,

business plans, usage patterns, etc.), all have chosen to use Federal Reserve facilities to meet at least some of their operational needs in the areas of clearing, delivery, and settlement. The role of the Federal Reserve in each of these areas is discussed below.

Role of the Federal Reserve⁴

ACH operations parallel check-clearing

³ For example, the February 27, 1974, letter agreement between the Federal Reserve Bank of Boston and the New England Automated Clearing House Association provides that:

The Reserve Bank shall operate as the Automated Clearing House of the Association, at no cost to the Association or its members except as provided herein, at the Reserve Bank's premises in Boston, Massachusetts, in accordance with the Operating Rules, the ACH/Participating Bank Guidelines Manual and other rules and policies of the Association as in effect from time to time, insofar as they are consistent with the Federal Reserve Act, regulations and policy guidelines issued by the Board of Governors of the Federal Reserve System and other applicable laws.

⁴ Federal Reserve operational involvement has raised a number of technical and policy questions of concern to depository institutions, as well as to various private organizations and Government agencies. In November 1973, the Board of Governors

operations in many respects, except that ACH payment information is exchanged on magnetic tape instead of paper checks. The Federal Reserve plays somewhat similar roles in the two types of operation. Federal Reserve banks that operate ACHs receive private sector-originated ACH payment items on tapes from any member bank and from any member of an ACH association, including thrift institutions. The Federal Reserve banks deliver private sector items to member banks and members of the ACH associations under published guidelines.⁵ For Federal recurring payments, the Federal Reserve acts as the fiscal agent for the Government and, in this role, provides clearing, settlement, and delivery functions under different rules established in cooperation with the U.S. Department of the Treasury. The rules provide for the delivery of these payments to all financial institutions, whether or not they are members of an ACH.

The services of clearing, delivery, and settlement for ACH payments are currently provided by the Federal Reserve without any explicit charges to the financial institutions using these services. This is also true of Federal Reserve check-clearing operations.

The Federal Reserve was able to implement ACH processing with minimal cost increases because it was able to use the same computer and delivery systems that it uses to process and deliver paper checks. In addition, the Department of the Treasury uses the same Federal Reserve facilities to process Treasury payments made by means of computer tape. The relevant Federal Reserve computer systems are not substantially different from those used to process checks in most large banks and many service

companies. The check delivery system is a tariffed

⁴Continued

issued for comment [38 Fed. Reg. 32952 (1973)] proposed revisions to its Regulation J (Regulation J deals with collection of checks through the Federal Reserve System) that would provide standards for liability of the parties using Federal Reserve facilities for ACHs, and asked for comments on the appropriate ownership and operational roles of Government and the private sector. After considering the comments received, the Board of Governors revised its proposed regulations and reissued them for comment on January 15, 1976 [41 Fed. Reg. 3097 (1976)].

Two months later, the Board stated that it would postpone action on its proposed amendments to Regulation J until this Commission had the opportunity to consider the issue [letter of March 10, 1976, to Chairman William B. Widnall from Mr. Theodore E. Allison, Secretary to the Board of Governors, Federal Reserve System]. The Commission responded that it had determined not to comment on the proposed regulations of any State or Federal agency until it felt prepared, as a result of its investigations and accumulated data, to take a position, but that the Commission hoped to make recommendations on a number of the policy questions presented by Regulation J, particularly pricing of and access to Federal Reserve facilities [letter of April 1, 1976, from Chairman William B. Widnall to Mr. Theodore E. Allison, Secretary to the Board of Governors, Federal Reserve System].

⁵41 Fed. Reg. 3097 (1976).

offering leased by the Federal Reserve from private couriers. Thus, the components of the Federal Reserve-operated ACHs are available from the private sector. However, the Federal Reserve banks, acting as fiscal agents for the Federal Government, process a significant number of recurring Government payments. Because there may be increasing returns to scale in processing such recurring payments, and because the Federal Reserve banks operate a transportation system for the delivery of checks and Government payments to the great majority of banks in the country every business day, the total cost to society in real resources may be lower if the Federal Reserve banks also provide ACH facilities for private sector payments.

Plans for the Future

The ACH was designed to handle debit and credit transfers where depository institutions receive instructions from corporate customers to pay out or collect funds from consumers. Another type of transfer processed by an ACH is that in which the consumer instructs the depository institution to make payments on his behalf. The consumer's depository institution maintains sufficient information on magnetic tape not only to accomplish the funds transfer, but also to allow the receiving merchant to post his accounts receivable records. The magnetic tape is then sent by the consumer's depository institution to the ACH for clearing and settlement.

Another type of transaction that could be cleared and settled through the ACH mechanism is a "value-dated" payment⁶ made at the point of purchase.

The data for such a payment would flow from a terminal located at a retail establishment to a depository institution. The depository institution would record the payment instructions on magnetic tape for deposit at an ACH. The ACH would clear and settle the payment on the date contained in the instructions.

Currently, commercial ACH payments are exchanged within a Federal Reserve district by physically transporting magnetic tapes⁷ and are not exchanged between ACHs in different Federal Reserve districts (Government electronic payments are distributed nationwide). However, plans are underway to conduct a pilot test to use the Federal Reserve's telecommunications network to exchange payments among ACHs in six Federal Reserve districts. This

⁶Value dating, sometimes referred to as effective dating, involves the "ability to communicate accounting data for a transaction for which actual funds will be transferred on a specified future date." See George C. White, Jr., "Future Funds Value Dating: An EFTS Necessity," *The Magazine of Bank Administration* (April 1975), p. 40. At present, ACHs process and settle pursuant to a 2-3 day schedule, which does not permit a value dating different from that in their settlement schedule. NACHA and the Federal Reserve are now upgrading their ACH computer programs to allow for value dating.

⁷Two Federal Reserve districts--Cleveland and San Francisco--are currently utilizing their own district telecommunications network to transmit commercial ACH items within their districts.

interregional test, undertaken at the request of NACHA, is scheduled to begin early in 1977. Some have expressed concern that the Federal Reserve, if it provides this interregional service on a continuing basis, may preclude the development of private-sector networks. For example, plans are underway for the privately owned and operated Bankwire II system to have the capability of transmitting ACH payments nationwide by the end of 1977.⁸

BACKGROUND ON SWITCHES FOR POINT-OF-SALE PAYMENTS⁹

An electronic point-of-sale (POS) system is designed to electronically capture and transmit payments information originating at a merchant location. This is accomplished by electronically transmitting a message from a terminal located at a merchant's counter to a data base in a depository institution's computer to accomplish a transfer of funds, or to provide an information service such as verifying or guaranteeing a check or authorizing a draw against a preestablished line of credit.

When, in a POS system, the account record-keeping systems of two or more depository institutions are involved, it becomes necessary to have a switch to route messages to the data centers where the affected accounts reside. To do this, two general system structures are possible:¹⁰

- Switch before the depository institution--the switch may be inserted between the terminals and depository institutions. All messages go through the switch, which manages the communications network controlling the

receipt and transmission of all messages passed through the system.

- Switch behind the depository institution--a depository institution is the first stop for any message from a terminal, with the switch having a role only when that depository institution needs to pass the message, or some portion of it, on to another depository institution. Each depository institution manages a separate communications network, and the switch is not the dominant system component. The terminals at each merchant are connected directly to the computer of his depository institution. If the merchant's customer also has an account at that depository institution, the

⁸ Department of Justice letter of Oct. 4, 1976, to the National Commission on Electronic Funds Transfer, commenting on a draft of NCEFT, "ACHs, POS Switches, and the Role of Government in EFTS," IWD-14 (October 1976); letter of Sept. 14, 1976, from New York Automated Clearing House to the Federal Reserve Bank of Atlanta.

⁹ This discussion is not intended to describe all variations of POS switching systems, but simply to define a typical on-line point-of-sale concept.

¹⁰ For a more detailed description of POS switching systems, see Chapter 7.

transaction is an "on-us"¹¹ item for that depository institution, and is processed completely at that point, without going to the switch. Only if the customer's account is at a different depository institution, so that the transaction is a transit item for the first institution, does that institution give the message to the switch, which routes it to the customer's depository institution.

In addition to routing messages, the switch can be made to perform data processing functions, such as developing net settlement figures, maintaining audit trails, and performing security checks. In addition, when the switch is before the depository institution, the switch can perform back up services such as transaction authorizations against predetermined limits.

Because EFT is in the early stage of development, and because the needs of the participants differ from system to system, the design criteria and the resulting system designs can vary greatly.

Differences Between POS and ACH

It is evident that there are some similarities between a POS switch and an ACH system both in the technology used and the functions performed. Both receive funds transfer messages from a number of sources and route them to a number of destinations while developing net settlement figures for the transfer of funds between depository institutions. But there are some significant differences.

First, ACH transactions are preauthorized by

the customer and initiated by the company or are initiated individually by the customer through his depository institution. POS transactions, on the other hand, are initiated individually at an electronic terminal by the customer through a merchant or other terminal operator and usually require immediate and unique authorization by the depository institution where the customer's account resides. Second, POS systems are developing in local markets where customers do business with a local merchant. Most ACH transactions, such as direct deposit of payroll, are, on the other hand, initiated by companies or government, are initiated in volume, and may entail regional or national distribution. The third major difference is that an ACH operates in a batch mode usually involving the physical delivery of tapes, whereas POS switches are expected to be on-line, real-time systems.

These distinctions are important to the questions of whether the operating mechanisms of an ACH could be employed to operate a POS switch and whether the Federal Reserve's operational role in the ACHs provides an impetus towards Federal Reserve operation of a POS switch.¹²

¹¹ *An item is "on-us" for the depository institution maintaining the account on which the item is drawn, and is a transit item for any other depository institution handling the item.*

¹² *A number of individuals and institutions have expressed a concern that ACH facilities may become the hub of POS systems. For examples of such concerns, see Comments of the U.S. Department of Justice in the Matter of Regulation J-Collection*